

will typically yield a histogram pattern as shown in Figure G. Attempts to sort sperm exhibiting a lower and scattered level of fluorescence will be unsuccessful (Figures A, B, and C). In addition, sperm left at room temperature for long periods of time lose their viability at an increasing rate.

It becomes readily apparent from a comparison of the histograms for room temperature treatment (A, B, C, and D) with the histograms for 35° C incubation (E, F, and G) that the incubation conditions of the claimed invention permit sorting to take place after a much shorter period of time and before greater portions of sperm die. The result will be a much greater percentage of viable, sorted sperm of a high purity. As can be seen from Figure B, the majority of the sperm held at room temperature for 1 hr (left peak) would not exhibit sufficient fluorescence to permit sorting.

Summary

Applicant has demonstrated an unexpected result of incubating sperm within the claimed range prior to sorting. The advantage over room temperature incubation is a higher rate of dye absorbancy, and thus a higher number of viable sperm having a sufficient level of fluorescence to permit sorting. This approach is contrary to the normal protocol for handling sperm which emphasizes storage at cool temperatures to maintain viability.

Serial No. 07/349,669

For the above stated reasons, Claims 9-27 are considered to distinguish over the art of record, and allowance thereof is earnestly solicited.

Respectfully submitted,



Curtis P. Ribando  
Curtis P. Ribando, Agent of Record  
Registration No. 27,976

Peoria, IL

FTS 360-4513  
COM 309/685-4011, x513  
44-74866 or 44-72421

Enclosure:

Johnson Declaration Under 37 CFR 1.132 w/Exhibit A